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10/764,095	01/23/2004	**Douglas Durham**	15436.163.1	8239

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EXAMINER	
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ART UNIT	**PAPER NUMBER**
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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No.	Applicant(s)	
	10/764,095	DURHAM ET AL.	
	Examiner	Art Unit	
	REDENTOR M. PASIA	2416	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE *3* MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *15 January 2009*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-40* is/are pending in the application.

4a) Of the above claim(s) *2,6-14,18 and 20-40* is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1,3-5,15-17 and 19* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *23 January 2004* is/are: a)☒ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date *09/16/2008*.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

Election/Restrictions

1. Claims 2, 6-14, 18, 20-40 are withdrawn from further consideration pursuant to 37 CFR 1.142(b) as being drawn to a nonelected specie, there being no allowable generic or linking claim. Election was made **without** traverse in the reply filed on 01/15/2009.

Applicant's election without traverse of claims 1, 3-5, 15-17 and 19 related to Specie 1 of Figure 8 in the reply filed on 01/15/2009 is acknowledged.

Response to Arguments

2. Applicant's arguments (dated 09/16/2008) with respect to claims 1, 3-5, 15-17 and 19 (note other claims were withdrawn from consideration per Election requirement) have been considered but are moot in view of the new ground(s) of rejection.

Claim Rejections - 35 USC § 112

3. The following is a quotation of the second paragraph of 35 U.S.C. 112:

> The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

4. **Claims 1, 3-5, 15-17 and 19** are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claim 1 recites the limitation "the reference clock frequency" in line 7. It is unclear if "the reference clock frequency" in line 7 refers to "a frequency of a reference clock" in line 7. If

they are related, the claim limitation "the reference clock frequency" in line 7 must be revised to "the [[reference clock]] frequency of the reference clock". If they are not related, "the reference clock frequency" in line 7 must be revised to "a [[the]] reference clock frequency".

However, in the examination of the claim, "the reference clock frequency" in line 7 has been interpreted by the Examiner as being related to "a frequency of a reference clock" in line 7.

There is insufficient antecedent basis for this limitation in the claim.

Claim 1 also recites the limitation "the communications protocol clock frequencies" in line 8. It is unclear if "the communications protocol clock frequencies" in line 8 refers to "the plurality of communications protocol clock frequencies" in line 6. If they are related, the claim limitation "the communications protocol clock frequencies" in line 8 must be revised to "the plurality of communications protocol clock frequencies".

However, in the examination of the claim, "the communications protocol clock frequencies" in line 8 has been interpreted by the Examiner as being related to "the plurality of communications protocol clock frequencies" in line 6.

There is insufficient antecedent basis for this limitation in the claim.

Claim 3 recites the limitation "a reference clock frequency" in line 2-3. It is unclear if "a reference clock frequency" in line 2-3 refers to "a frequency of a reference clock" in line 7 of claim 1. If they are related, the claim limitation "a reference clock frequency" in line 2-3 must be revised to "the [[a reference clock]] frequency of the reference clock". If they are not related, "a reference clock frequency" in line 2-3 must be revised to "another [[the]] reference clock frequency".

However, in the examination of the claim, "a reference clock frequency" in line 2-3 has been interpreted by the Examiner as being related to "a frequency of a reference clock" in line 7.

There is insufficient antecedent basis for this limitation in the claim.

Claim 4 also recites the limitation "the plurality of communications protocols" in line 1-2. It is unclear if "the plurality of communications protocols" in line 1-2 refers to "the plurality of transmission protocols" in line 4-5 of claim 1. If they are related, the claim limitation "the plurality of communications protocols" in line 1-2 must be revised to "the plurality of [[communications]] transmission protocols".

However, in the examination of the claim, "the plurality of communications protocols" in line 1-2 has been interpreted by the Examiner as being related to the plurality of transmission protocols" in line 4-5 of claim 1.

There is insufficient antecedent basis for this limitation in the claim.

Claim 5 is rejected on the same reasoning due to its dependency on independent claim 1.

Claim 15 also recites the limitation "the communications protocol clock frequencies" in line 13. It is unclear if "the communications protocol clock frequencies" in line 13 refers to "a plurality of communications protocol clock frequencies" in line 11. If they are related, the claim limitation "the communications protocol clock frequencies" in line 13 must be revised to "the plurality of communications protocol clock frequencies".

However, in the examination of the claim, "the communications protocol clock frequencies" in line 13 has been interpreted by the Examiner as being related to "a plurality of communications protocol clock frequencies" in line 11.

There is insufficient antecedent basis for this limitation in the claim.

Claim 16-17 and 19 are rejected on the same reasoning due to their dependency on independent claim 15.

Claim Rejections - 35 USC § 101

5. 35 U.S.C. 101 reads as follows:

> Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

Claim(s) 1, 3-5 is/are rejected under 35 U.S.C. 101 as not falling within one of the four statutory categories of invention. While the claims recite a series of steps or acts to be performed, a statutory "process" under 35 U.S.C. 101 must (1) be tied to another statutory category (such as a particular apparatus), or (2) transform underlying subject matter (such as an article or material) to a different state or thing. The instant claims neither transform underlying subject matter nor positively tie to another statutory category that accomplishes the claimed method steps, and therefore do not qualify as a statutory process.

Claim Rejections - 35 USC § 103

6. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

7. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various

claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

8. **Claims 1, 3 and 5** are rejected under 35 U.S.C. 103(a) as being unpatentable over Yu et al. (US 6,070,248; hereinafter Yu) in view of Schlater et al. (US 6,148,420; hereinafter Schlater).

As to claim 1, Yu shows a method (Figure 1 shows the system that performs the method) for defining a common time base suitable for use in connection with the operation of a multi-link protocol analyzer in a multi-protocol communications system, the method comprising:

determining a clock frequency (col. 1, line 66 to col. 2, lines 8; note base clock signal having base frequency) for each network element associated with the communications system (Figures 1-4; col. 3, lines 12-39; col. 4, lines 6-13; note base clock signal having base clock frequency is accepted from external sources in computer network 206/linking network 110; in this instance, base frequency is determined upon accepting the base clock signal having the base frequency; and

using the plurality of clock frequencies as a basis for determining a frequency of a reference clock (Figures 1-4; col. 1, line 66 to col. 2, line 8; col. 3, lines 12-54; note reference clock is generated based on the base clock signal; also note that the reference clock varies depending on the base clock signal source present in any of the plurality of computers. Thus it

can be seen, the reference clock is based on the base clock frequencies supplied by the computers.),

where the reference clock frequency is different from each of the clock frequencies (Figure 3-4; col. 3, lines 49-58; note reference clock can either have the value of 1 MHz or 10 MHz, while base clock frequencies have values of 2.5 MHz, 20 MHz, 25 MHz, or 33 MHz.).

Even though, Yu shows that the base clock frequencies vary depending on the source/network element, as discussed above, Yu does not specifically show that the source/network elements are implemented in a plurality of transmission protocols, and further does not show a multi-protocols communications system.

However, the above-mentioned claim limitations are well-established in the art as evidenced by Schlater. Specifically, Schlater shows an analyzer that can be implemented using a plurality of transmission protocols (Figure 9; col. 2, lines 24-42; note that serial analyzer is used to analyze serial data encoded in accordance with a plurality of different communications protocols), and a multi-protocols communications system (Figure 1 and 9; col. 12, line 49 to col. 13, line 38 shows the communications system receives encoded in different protocols.).

In view of the above, having the system of Yu, then given the well-established teachings of Schlater, it would have been obvious to one of ordinary skill in the art at the time of the invention to modify the system of Yu as taught by Schlater in order to allow events occurring in different components of a system to be correlated in time (col. 1, lines 46-50).

As to claim 3, modified Yu shows selecting a reference clock frequency that is higher than any of the plurality of communications protocol clock frequencies (Yu: Figure 3-4; col. 3,

line 40-60; col. 4, lines 13-49; note that the reference frequency can have a value of 10MHz, while the base frequency can have a value of 2.5 MHz.).

As to claim 5, modified Yu shows the step of using the reference clock as a basis to determine at least one of the following: a relative chronological order of selected data events concerning the multi-protocol communications system; and, relative timing of selected data events concerning the multi-protocol communications system (Yu: col. 2, lines 29-37; note that the present invention may be used to generate a reference clock signals for timing events within an Ethernet computer network peripheral device coupled between a computer host system and a computer network; the base signal source may be from the computer host system or the computer network, and the storage device containing the value of the base frequency may be an EEPROM within the computer host system or the computer network; note multi-protocol communications system shown by Schlater.).

9. **Claim 4** is rejected under 35 U.S.C. 103(a) as being unpatentable over Yu et al. (US 6,070,248; hereinafter Yu) in view of Schlater et al. (US 6,148,420; hereinafter Schlater) in further view of Mayer (US 7,042,908; hereinafter Mayer).

As to claim 4, modified Yu shows all of the elements except wherein the plurality of communications protocols includes at least one of the following communications protocols: Infiniband; Gigabit Ethernet; SONET; Fibre Channel; and, PCI Express.

However, the above-mentioned claim limitations are well-established in the art as evidenced by Mayer. Mayer shows (at col. 1, lines 7-12) an invention relates to the field of data transmission, such as data transmission that may occur in a data network that can be synchronous

or asynchronous. More particularly, it pertains to a method and apparatus for transporting data signals of arbitrary transmission rate over a data network characterized by a range of allowable transmission rates.

Specifically, Mayer shows the system being implanted using SONET/SDH (figure 1; col. 3, lines 38-54).

In view of the above, having the system of modified Yu, then given the well-established teachings of Mayer, it would have been obvious to one of ordinary skill in the art at the time of the invention to modify the system of modified Yu as taught by Mayer in order to improve the technology for transparently transmitting electrical data signals, in particular signals of arbitrary transmission rate, over a data network (col. 2, lines 30-34).

10. **Claims 15-17** are rejected under 35 U.S.C. 103(a) as being unpatentable over Strong et al. (US 6,335,931; hereinafter Strong) in view of Yu et al. (US 6,070,248; hereinafter Yu) in further view of Schlater et al. (US 6,148,420; hereinafter Schlater).

As to claim 15, Strong shows a protocol analyzer (Figure 1; col. 1, lines 48-53; note the network device that implements the network analyzer device 100 and 101) configured for use in connection with processing data events associated with a multi-protocol communications system (Figure 1; col. 3 line 66 to col. 4, lines 56; note that the network device which includes both network analyzer device processes captured data (i.e. data events in relation to the LAN or WAN; col. 1, lines 12-14; further note that data transmitted through LAN or WAN are transmitted through many different protocols. Taking into consideration the functionalities of

the network analyzer devices included in the network device, along with the inherent protocols that the data are associated with, the network device of Strong, can be seen as a protocol analyzer.), the protocol analyzer comprising:

a first link analyzer (Figure 1, network analyzer 100) configured to receive data from a first communication link (Figure 1; col. 1, line 66 to col. 2, lines 6; note data input device 102a intercepts a data traveling along a data path of a network); and

a second link analyzer (Figure 1, network analyzer 101) in at least indirect communication with the first link analyzer and configured to receive data from a second communication link (Figure 1; col. 1, line 66 to col. 2, lines 6; note data input device 102b intercepts a data traveling along a data path of a network),

each of the first and second link analyzers (Figure 1, network analyzer 100 and 101) also being configured to receive and transmit a trigger (Figure 1; note trigger in 128a, 128b and trigger out 126a, 126b used by each network analyzer device to perform trigger operations) and a reference clock (Figure 2, clock in 222a, 222b and clock out 220a, 220b used by each network analyzer device to perform clock synchronization; col. 2, lines 55-61; col. 5, lines 12-48; same clock source.), and

each of the first and second link analyzers further being configured to timestamp data in association with the reference clock (Figure 1-2; col. 2, lines 55-61; col. 5, lines 12-48; note that the network analyzer device timestamps data packets since they are derived from the same clock source.).

Even though, Strong shows a same clock source being utilized by both network analyzer devices and also the multi-protocol communications system, as discussed above, Strong does not specifically show wherein the reference clock is defined by a plurality of communications protocol clock frequencies associated with a communications system, the reference clock being different from each of the communications protocol clock frequencies.

However, the above-mentioned claim limitations are well-established in the art as evidenced by Yu. Yu shows a clock signal generator within an electronic device locally generates a reference clock signal having a reference frequency from a base clock signal having a base frequency (abstract).

Specifically, Yu shows a reference clock is defined by a plurality of clock frequencies associated with a communications system (Figures 1-4; col. 1, line 66 to col. 2, line 8; col. 3, lines 12-54; note reference clock is generated based on the base clock signal; also note that the reference clock varies depending on the base clock signal source present in any of the plurality of computers. Thus it can be seen, the reference clock is based on the base clock frequencies supplied by the computers given in the network),

the reference clock being different from each of the communications clock frequencies (Figure 3-4; col. 3, lines 49-58; note reference clock can either have the value of 1 MHz or 10 MHz, while base clock frequencies have values of 2.5 MHz, 20 MHz, 25 MHz, or 33 MHz.).

In view of the above, having the system of Strong, then given the well-established teachings of Yu, it would have been obvious to one of ordinary skill in the art at the time of the invention to modify the system of Strong as taught by Yu since it has been stated by Yu that the

reference clock frequency maybe generated for any electronic device (i.e. into the network device of Strong) in order to provide cheaper alternative to implementing an original clock signal source (col. 3, lines 11-15; col. 6, lines 28-32).

Even though, modified Strong shows that the base clock frequencies vary depending on the source/network element, as discussed above, modified Strong does not specifically show that the source/network elements are implemented in a plurality of communications protocols.

However, the above-mentioned claim limitations are well-established in the art as evidenced by Schlater. Specifically, Schlater shows an analyzer that can be implemented using a plurality of communications protocols (Figure 9; col. 2, lines 24-42; note that serial analyzer is used to analyze serial data encoded in accordance with a plurality of different communications protocols).

In view of the above, having the system of modified Strong, then given the well-established teachings of Schlater, it would have been obvious to one of ordinary skill in the art at the time of the invention to modify the system of modified Strong as taught by Schlater in order to allow events occurring in different components of a system to be correlated in time (col. 1, lines 46-50).

As to claim 16, further modified Strong shows at least one of the link analyzers is configured to generate the reference clock (Yu: Figures 1-4; col. 1, line 66 to col. 2, line 8; col. 3, lines 12-54; note reference clock is generated based on the base clock signal.).

As to claim 17, further modified Strong shows at least one of the link analyzers is configured to generate the trigger (Strong: Figures 1-2; col. 4, line 57 to col. 5, lines 10; note that either network analyzer device 100 or 101 can act as the generator of the trigger operations).

11. **Claim 19** is rejected under 35 U.S.C. 103(a) as being unpatentable over Strong et al. (US 6,335,931; hereinafter Strong) in view of Yu et al. (US 6,070,248; hereinafter Yu) in further view of Schlater et al. (US 6,148,420; hereinafter Schlater) in further view of Mayer (US 7,042,908; hereinafter Mayer).

As to claim 19, further modified Strong shows all of the elements including a reference clock being generated through the use of frequency dividers being applied to the base signal source (Yu: Figure 3-4). However, further modified Strong does not specifically show the reference clock has a frequency that that is higher than each of the plurality of communications protocol clock frequencies.

However, the above-mentioned claim limitations are well-established in the art as evidenced by Mayer. Specifically, Mayer shows the reference clock has a frequency that that is higher than each of the plurality of communications protocol clock frequencies (Figure 2; clock generator unit having the multiplier; col. 4, lines 50-65; The automatic frequency control unit 210 is operative to automatically set the multiplier 216 such that an appropriate frequency multiplication is applied to the first data clock signal (i.e. base clock signal/protocol frequency) for increasing the latter to the second data clock signal (i.e. reference clock). The automatic frequency control unit 210 sets the multiplier 216 on the basis of a pre-defined and desired line

transmission rate, whereby, after multiplication, the second data clock signal is indicative of this predefined line transmission rate.).

In view of the above, having the system of further modified Strong, then given the well-established teachings of Mayer, it would have been obvious to one of ordinary skill in the art at the time of the invention to modify the system of further modified Strong as taught by Mayer in order to improve the technology for transparently transmitting electrical data signals, in particular signals of arbitrary transmission rate, over a data network (col. 2, lines 30-34).

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to REDENTOR M. PASIA whose telephone number is (571)272-9745. The examiner can normally be reached on M-F 7:30am to 4:00pm EST.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Aung Moe can be reached on (571)272-7314. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

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